

Statistics (MS)

For additional program information see the [Zicklin School website](#)

The Master of Science in Statistics is designed to train students in the design and application of quantitative models to decision making in business, finance, pharmaceutical and other industries, and government. The MS program provides students with the concepts and skills that form the fundamental base of knowledge essential to statistics professionals in today's sophisticated business environment including the technical background and capabilities required for the newer approaches to overall business analytics and data mining. The MS program is designed to provide a concentrated, in-depth study of the field for those who wish to be technical specialists in statistics. Students completing the MS degree successfully go on to careers as statisticians and sometimes continue to pursue a Ph.D. in statistics. The MS is a 31.5 credit program consisting largely of statistics courses and some related business courses which can be completed either part-time or full-time.

English Language Proficiency:*		
Students who completed their undergraduate education in a non-English speaking country will be required to take non-credit bearing modules in Grammar Troubleshooting and American English Pronunciation offered by the Division of Continuing and Professional Studies. These modules may be waived based on a waiver exam. The modules are not required for students who completed a four-year degree in an English-speaking country.		
Preliminary Courses (9 credits)		
Students with appropriate academic background will be able to reduce the number of credits in preliminary requirements. Grades in undergraduate mathematics courses are not calculated in the grade point average.		
MTH 2610	Calculus I	3 credits
MTH 3010	Calculus II	3 credits
STA 9708***	Managerial Statistics	3 credits
Note: MTH 2610 and MTH 3010 are undergraduate courses. Entering students are strongly advised to complete a minimum of six credits of calculus before starting the MS programs in Statistics, in order to waive these math requirements.		
Courses in Specialization (31.5 credits)		
Required (13.5 credits)		
BUS 9551	Business Communication I*	1.5 credits
STA 9700	Applied Regression Analysis	3 credits
STA 9715	Applied Probability	3 credits
STA 9719	Foundations of Statistical Inference	3 credits
STA 9750	Software Tools for Data Analysis (OPR 9750)	3 credits
Choose four courses from (12 credits):		
STA 9690**	Advanced Data Mining for Business Analytics	3 credits
STA 9701	Time Series: Forecasting and Statistical Modeling	3 credits
STA 9705	Multivariate Statistical Methods	3 credits
STA 9706	Analysis of Categorical and Ordinal Data	3 credits

STA 9710	Statistical Methods in Sampling and Auditing	3 credits
STA 9712	Advanced Linear Models	3 credits
STA 9713	Financial Statistics	3 credits
STA 9714	Experimental Design for Business	3 credits
STA 9783	Stochastic Processes for Business Applications (OPR 9783)	3 credits
STA 9791	Special Topics in Statistics	1 credit
STA 9792	Special Topics in Statistics	1.5 credits
STA 9793	Special Topics in Statistics	2 credits
STA 9794 (formerly STA 9772)	Special Topics in Statistics	3 credits
STA 9850	Advanced Statistical Computing (OPR 9850)	3 credits
Business Electives (6 credits)		
Choose two 9000-level courses from the graduate offerings of the Zicklin School of Business, subject to the written approval of the Statistics graduate adviser. Student may take additional statistics courses as their business electives.		

*Effective for all MS-Statistics students admitted in spring 2016 or later. Students admitted prior to spring 2016 should consult their preliminary course evaluation and/or waiver exam results, since other requirements and conditions may apply.

**Effective spring 2016; students admitted prior to fall 2015 will receive credit for STA/CIS 9660.

*** Formerly STA 9708 Applied Statistical Analysis for Business Decisions; new course title effective Spring 2017.